HURRICANE KATRINA: THE CHALLENGE TO GRADUATE MEDICAL EDUCATION

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Dr. Michael Wilson has described some of the challenges that academic medicine program directors face in balancing the "three-legged stool" of teaching, patient care, and research. Academic medical staff try to maintain the balance in a poise that is deemed satisfactory by the ACGME Residency Review Committees. On August 29,2005, the three-legged stool at Ochsner Clinic Foundation found itself surrounded by water.

When hurricane Katrina's storm track took aim at New Orleans, Ochsner Clinic Foundation activated its disaster plan. Ochsner has been refining its response to hurricane threats for over two decades. In recent years, valuable lessons were learned during encounters with hurricanes Jorge and Ivan. Katrina surprised most New Orleanians. Its threat was declared on a Friday afternoon, leaving less that 48 hours of preparation time for a population accustomed to boarding windows and hoarding bottled water and batteries. But the hospital was prepared to notify essential personnel to prepare to stay when they came to work on Sunday.

Each individual residency and fellowship program has its own disaster response plan, which is integrated into the institution's list of essential personnel and physician services. In most cases, the residents and staff physicians who were scheduled for call on the day of the predicted disaster are the designated "essential personnel" or "Team A." Everyone else is released to evacuate if necessary. In all previous experiences, "non-essential" staff and house staff returned two to three days after the storm and resumed usual services. In the event of a real disaster, the plan was to assemble a "Team B" at the Ochsner Clinic Northshore site in Covington, Louisiana. Team B would be brought in to provide relief for Team A.

Unfortunately, Katrina did not prove to be a drill. She struck with a fury, leaving a corridor of destruction that stretched from New Orleans and Jefferson Parish eastward to Biloxi, Mississippi, and inland as far as Jackson and Meridian, Mississippi. Wind damage disrupted power and telephone lines in this wide area, paralyzing communications. Most devastating was the storm surge that inundated New Orleans and adjacent communities to the east including Chalmette in St. Bernard Parish, and Slidell in St. Tammany Parish. The human death toll and the magnitude of property damage established Katrina as the most destructive natural disaster in U.S. history.

Institutional survival parallels individual experience. Residents of New Orleans who survived the initial strike find themselves in a process of determining and planning a future in a changed environment. Graduate medical education at Ochsner had to survive the immediate crisis of the hurricane, and then develop a strategy for continuing to educate physicians in a rapidly changed and changing environment. If the three-legged stool was not washed away, it must be righted and rebalanced.

Immediate survival was challenging. The hospital itself survived the storm with some wind damage but no significant flooding. The elaborate and well crafted disaster preparations allowed the hospital to maintain services while power, water and communications were disrupted. But communication with the outside world was difficult, and the preparation of Team B could not be accomplished at the Northshore Clinic in Covington where damage was widespread and power was also unavailable. Fortunately, Ochsner has an established regional clinic in Baton Rouge that provided an alternative staging area for relief. Further, the Ochsner internet servers were wisely configured to remain operational in

spite of the loss of external power and telephone service. Electronic mail became a preferred means of communication and was instrumental in allowing communication between the personnel on the Main campus, the staging area at the Ochsner Clinic Baton Rouge, and the diaspora of medical staff and house staff who had evacuated the city and region. In the immediate weeks after the storm, resident teams were assembled by their programs to work shifts in the hospitals. Most lived at the main campus for 5-7 days at a time, as the surrounding Jefferson and Orleans parishes remained closed for most of the month of September.

As city services were restored in surrounding Jefferson Parish and freedom of movement returned, training program directors assessed the changes in clinical volumes and began planning for the future. Most New Orleans hospitals were closed, including Children's Hospital, an important affiliate program for surgical specialties such as Urology. Approximately 300,000 citizens were displaced to surrounding areas including Baton Rouge. The closure of Charity Hospital New Orleans resulted in an increase in patient volumes at Leonard Chabert Medical Center in Houma, an affiliate hospital for many Ochsner residency programs including Internal Medicine, General Surgery, Orthopedics, Ophthalmology, and Obstetrics and Gynecology.

Directors of each training program had to assess their specific needs and make appropriate adjustments to maintain educational goals. Patient volumes at Ochsner Foundation Hospital and Clinic returned to normal quickly, and most staff physicians were able to return to the Main Campus and neighborhood clinics. Consequently, residency program activities on the main campus were able to resume with few changes. The increase in patient volumes in Houma was generally beneficial to the program activities there, providing more surgical and obstetric procedures. In contrast, Children's Hospital New Orleans reopened to greatly decreased patient volumes, which forced some programs to look for other pediatric training settings. The closure of Charity Hospital included the loss of the Trauma Center, so the surgical residency had to identify an alternative site for affiliation. As New Orleans residents continue to return, patient volumes will continue to shift, necessitating further adjustments.

Through careful planning and good fortune Ochsner survived Katrina with little physical damage. In spite of 150 mph winds and a 20 foot storm surge, graduate medical education still has a stool to balance. With the abundant clinical resources of the Ochsner main campus supplemented by carefully developed affiliations with outside institutions, Ochsner will continue to use teaching, patient care, and research to prepare physicians to meet the challenges of medicine's future.



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